

ALEXANDER GREENLAW HAMILTON.

1852-1941.

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The membership, past and present, of the Linnean Society of New South Wales includes many distinguished names in the scientific world, names such as T. W. E. David, J. J. Fletcher, W. A. Haswell, C. Hedley, J. P. Hill, A. H. S. Lucas, Wm. Macleay, C. Martin, Elliot Smith, J. T. Wilson, with R. H. Cambage, H. J. Carter, R. Etheridge and J. H. Maiden; names of men whose services to science—either as research students or as promoters of scientific work—have earned for the society, even during the relatively short time it has been in existence, an honourable place in the world of science. These all, and others still among us, have striven, or are striving, whole-heartedly, to maintain the high standard set by the pioneers of scientific research in Australia. But no member of the Linnean Society has merited more the admiration, respect and affection of his colleagues than the late Alexander Greenlaw Hamilton—admiration and respect, not only by reason of his unwavering devotion to family, official, civic and scientific duties, but also because of the marked success won by him in the teeth, as it were, of armed antagonisms opposing his ascent right up the ladder of fame from the lowest rung; affection, because of his unfailingly friendly, cheery, encouraging, exhilarating and inspiring nature.

His career is a notable example of the prodigious amount of work of solid worth which self-help may accomplish, for Hamilton's success lay, mainly, in his instinctive and intimate communion with Nature; his unaided but well-developed powers of observation and reflection; the tireless energy and buoyancy which were natural to him, together with his inherent regard for Truth. His quest was Truth first and Truth last. Scientific fame and social recognition counted but little with Hamilton compared with his loyalty to Nature herself who, it would seem, had cast her spell upon the youth as she had done to naturalists before him, such as Louis Agassiz, Mendel, John Muir, and Darwin.

To speak of his love—his "queerness" as some of the rustics dubbed it—for Nature, was but to epitomize his love for "man and bird and beast"; it was, in short, to summarize his life's ambition.

Hamilton does not appear to have sought either popularity or the affection of his fellows. He certainly was decidedly popular and he was affectionately regarded by all, but that was simply the natural result of his inherently tolerant and affectionate nature. He had "cast his bread upon the waters and it had returned to him after many days". "He liveth well who loveth well both man and bird and beast."

Absorbed in his scientific work, and in service to his fellows, he sought to inspire them with a love for Nature, and with the desire and will to co-operate with each other in all matters tending to the common good. As E. E. Pescott, a Victorian colleague, testifies: "It was his power of inspiration that was a real force. 'Have you ever published anything?', he would say, after a joint excursion with a colleague who had not yet published. Then he would urge the case for publication so eloquently as to persuade his colleague to commence taking careful observations with the idea of publishing. He was a great yet humble man, and I shall always feel better for having known him. . . . 'Work, work, and tell the world about it, so that you may help someone else' was his motto, and he was unselfishness itself in all his advice."

When others plagiarized his work, or were given, as sometimes happened, credit for observations or addresses given by himself, he would reply "Nobody knows which is which, and it will be all forgotten in a month". (Pescott.)

Whatever success he obtained during his lifetime was due, not so much to elaborate and rhetorical presentations of his work and its worth, as to the patient and tireless search for facts rather than for sensational novelties. In short, he adopted the methods employed by great yet modest naturalists before him, men like Darwin, Farrer, G. K. Gilbert, Haswell, W. H. Hudson, Mendel, John Muir, A. R. Wallace and Waterton. There were only twenty-four hours in the day for Hamilton, and he, like the great ones mentioned above, chose God before Mammon.

Another significant feature in his personality lay in the fact that, in addition to his acknowledged skill in various biological matters, he was—as W. J. Enright and E. E. Pescott state—equally at home with school children, with more advanced students, with research scientists, with farmers, drovers, lumbermen, with the man “on the land”, and with the man “on the street”.

The general testimony of his various colleagues is that he was a born naturalist—the Admirable Crichton in all things pertaining to Nature as she is revealed in the Australian “bush” and along the shoreline—an ideal parent and home companion; an eminently successful teacher (reminiscent of Pestalozzi, according to T. T. Roberts, a colleague); an esteemed citizen; a skilled craftsman; an artist and musician of no mean ability; a true sportsman; and a gentleman.

Among the successes which he gained, despite his innate modesty, may be mentioned the highly satisfactory result of his appeal for the active recognition of the value of Natural History studies in Primary School curricula. This appeal was made at the Educational Conference of April, 1904, and it induced the Department of Education—on the motion of Sir George Knibbs—to include the study of Nature (with elementary physics, chemistry, zoology, botany, geology and mineralogy) in the Primary Schools of the State.

F. T. Berman, a colleague and friend of more than thirty years' standing, quotes his personal experience during which “A generation has passed since Hamilton conducted his memorable pioneering work. Teachers and pupils of more than three decades have built upon the foundation laid by him and reared a superstructure which has been productive of a better understanding and appreciation of that which is written ‘in the manuscripts of God’”.

W. J. Enright, well known to Linnean members as the stalwart champion of the cause both of Nature Study, and of Nature herself, in the Hunter and Manning districts, pays a high tribute to the work and character of Hamilton: “With all his wide knowledge he combined the ability to adopt his addresses to the minds of the various audiences which he addressed. His never-failing humour helped to capture and maintain the interest of his audience. . . . His knowledge of Australian bird life was very great . . .” extending to a close knowledge of “the songs and notes of the birds, together with their habits”.

Enright considers that Hamilton, like Joseph Leidy, would never become tired of life so long as there existed, alongside of him, and easily accessible, even so humble an organism, or organic trace, as an intestinal worm, a fragment of fossil bone, a grub, or a diatom, new to science.

P. R. Cole, a colleague of long standing, furnishes an appreciation of Hamilton in which he stresses “His gentleness, constancy, magnanimity, his originality in research, and his genial friendship, which all combined to exert a subtle and powerful influence upon both students and all who knew him”.

The written, or spoken, appreciations of other educational colleagues—including P. Board, F. Bridges, Margaret Deer, Thistle Y. Harris, T. T. Roberts and S. T. Turner—are all confirmatory of the eulogies of Berman, Cole, Enright and Pescott. S. T. Turner tells how “His approach to science as a teacher was not that of a dry-as-dust Professor with . . . hair-splitting definitions . . . but of one interested in life activities. . . . He was an accomplished artist who could sketch rapidly the various illustrations required in his lectures and publications. . . . He was incapable of an unkindly thought. . . . All teachers who came under his influence were impressed by his gentle, kindly, co-operative nature. He was an inspiration to Nature students.”

This brief appreciative note dealing with Hamilton, the man, will serve as an introduction to the accompanying condensed account of his life activities as a citizen, a teacher, and as a scientific research student.

At the outset, I desire to record the deep debt of gratitude which I owe to various colleagues and friends of Hamilton, without whose help the wealth of material from which this note has been prepared, would have become available only with the greatest difficulty.

Hope had been placed, at the beginning, upon obtaining access to an autobiography which Hamilton is known to have prepared. Failure to trace this valuable document led to inquiries for the needed information concerning Hamilton's activities from various scientific colleagues. But Hamilton had outlived all his old-time colleagues in science, from whom valuable reminiscences might be expected to have been obtained. Ample material, however, was forthcoming finally through the zealous and friendly efforts of F. T. Berman, formerly Head Master of Fivedock Public School, and E. A. Hamilton, veterinary surgeon and a son of A. G. Hamilton. F. T. Berman was associated intimately with A. G. Hamilton in the Department of Public Instruction for a period exceeding thirty years. To Berman also we are indebted for obtaining written tributes of marked esteem and affection from Hamilton's colleagues at the Training College and elsewhere, namely, P. R. Cole, Miss M. Deer, T. T. Roberts, Miss Thistle Y. Harris and S. T. Turner. To E. A. Hamilton we are indebted for the notes on the general family, official, and civic activities of his father, and for the letters of appreciation from W. J. Enright and E. E. Pescott.

Alexander Greenlaw Hamilton was born at Baillicborough, Ireland, on 14th April, 1852. His father was Alexander Greenlaw Hamilton, whose father, John Hamilton, had married Sarah Greenlaw, of Greenlaw, Scotland. John Hamilton had seen active military service in the Peninsular War; in the war with the United States in 1812; and at the Battle of Waterloo, where he was awarded the Waterloo Medal for valour. Our Hamilton's mother was a daughter of William Wynne of Killybegg, County Louth, near Ardee, Ireland.

Hamilton arrived in Australia, with his father and mother, in or about his fourteenth year. In 1866, he succeeded in passing the examination test demanded by the Education Department of New South Wales for candidates desirous of teaching in "country schools". Although successful in the written and oral tests, he was considered to be too young to be placed in full charge of a school, and a compromise was effected whereby he, although only fourteen years of age, gave the whole of the instruction, whereas, officially, his mother was recognized as the responsible agent to the Department.

This school was at Fish River Creek. Somewhat later, the family moved to Meadow Flat, where Hamilton was placed officially in charge of the school. In 1870, he was appointed to the position of assistant at St. Mary's Church of England School at South Creek. At a later stage, but during the same year, he attended a course of training for teachers given at Fort Street, Sydney, and, in October of that year, he was promoted to the charge of the public school at Guntawang, a position which he held until 1887.

Here, at Guntawang, commenced a remarkably happy period of his life. Here it was that he met and married Emma Thacker, of Guntawang. Hamilton was married on the twenty-first anniversary of his birthday, his wife being but eighteen years of age. She it was who became a lifelong companion and helper to him, accompanying him on various lengthy excursions for the collection of Natural History material. Here it was that he commenced his long and fruitful communion with Nature; here it was that his sons were reared and introduced to the secrets and beauties of Nature; and here it was that many lifelong friendships were established with leaders of scientific thought in Australia.

Here also it was that he created, gradually, a deep interest in Natural History objects among the country people in his neighbourhood, and the members of Hamilton's family have very lively recollections of the non-co-operative and vigorously protesting representatives of the local fauna which were from time to time unceremoniously introduced to

the attention of the Hamilton household—birds of all sorts, graceful marsupials, writhing snakes, bloated lizards, fearsome insects and other arthropods, many things slimy and slippery, together with uncommon plants. The collections consisted generally of organisms which were considered, by the youthful collectors, to possess some special feature of attractiveness, such as uncommon beauty or ugliness, particular aggressiveness or dangerousness.

In addition to these job lots arriving, in impromptu fashion, from all points of the compass, Hamilton himself had gathered around him his own particular pets, ranging from birds and lizards to kangaroos, wallabies and opossums. One of his greatest treasures was a platypus possessed of very retiring habits. It preferred darkness to light, but not "because his deeds were evil". It was made as comfortable as local conditions permitted under the peculiar circumstances, seeing that Hamilton's small home plot possessed neither a handy river nor lake in whose banks the strange guest might conceal itself. Finally, however, it was persuaded to be happy and comfortable in a nest improvised from a box attached to a tree stump. Under cover of night, the wary monotreme would take its courage "in both hands", as it were, and, making use of the darkness as a substitute for its natural gloomy underground passage made in the river or lake bank, would venture forth and collect worms and other gastronomic delicacies (which had been supplied with a generous hand by the Hamilton family) from a tub of water which the unsuspecting pet possibly mistook for an inlet of its own natural river or lake-like expanse of same.

Hamilton possessed a very strong community spirit which found expression in whole-hearted participation in the social activities of the various districts in which he happened to live. These activities he extended in certain directions. At Guntawang, for example, he was responsible for the establishment there of a School of Arts, the work of Librarian devolving upon himself. Indeed, the amount of scientific, social, and sporting activities which he compassed in non-official hours was a never-failing source of wonder to his family, for, although his chief hobby was Nature Study in its various ramifications, nevertheless, at Guntawang, at least, he was known not only as a naturalist, but as an enthusiastic cricketer, musician, sketcher, painter, photographer, and general helper and counsellor. In all the local musical activities, whether sacred or secular, he was *facile princeps*. He was the organist of the church and leader of the choir, as well as being the acknowledged leader of the local concerts and dramatic performances. In local cricket circles his assistance was valued specially in the batting and wicket-keeping departments. The gloves worn in the country at that period gave insufficient protection against the incoming tendency to fast overarm bowling—as opposed to the old underarm delivery—with the result that every finger of his right hand appears to have suffered severely, either by having a bone broken or a joint dislocated due to his own stubbornness in maintaining his close stand behind the wicket.

Sketching ("drawing") and painting were not hobbies so much as means to an end, namely, the simplification and clarification of Natural Study descriptions. He appeared to possess a special gift in drawing, whereby he caught the natural expression of the various subjects chosen for illustration. This gift he employed freely in his earlier studies in the preparation of coloured illustrations of plants, birds, and other objects of the district for identification by William Woolls, Baron von Mueller, and other authorities, but all strangers to the district. His black-board sketches, moreover, proved to be of most definite assistance to his Natural History classes.

Photography was especially welcome to him as being a most marked help in his studies. His first attempts were with the cumbersome and obsolete wet-plate system. This, as is well known, was a lengthy and difficult process, involving the employment of the focussing apparatus, the painting of the plate, the screening of same, the exposure, and the development at once afterwards. In the Guntawang days (1870–1887), many of the local residents had considered him to be a little "queer", because of the meticulous caution and care taken by him in observing the habits of animals, insects and plants; but when he went through the solemn ceremony of photography with his high tripod and its black cloth, the wet-plate, the focussing details, the seriousness observed by him in making the important plate exposure, the careful extraction of the plate and develop-

ment of same, then, indeed, the rustics felt confident that their school teacher was not "quite like" other men in the settlement.

The photographic hobby remained with him to the end, and very numerous were the excellently coloured lantern slides of plants prepared by him.

Despite all his other activities, he was an omnivorous reader. He spent all that he could afford (and even what he could not really afford, according to family testimony) on books. Hamilton possessed one point, at least, in common with his platypus, in that he pursued his hobby of reading much about the same time that the beloved platypus was pursuing its own hobby of exploration and grub-hunting in the mud of the big tub, namely, night time, when "man's work is done", and field work, therefore, was supposed to be impracticable even for Hamilton. Many a time the sight of "Greenlaw" coming home quite unobtrusively, but with his bag suspiciously heavy, would cause his wife to wonder as to the nature of the contents of that same bag, for, if of books, it might have some slight effect on the domestic budgeting for the month.

After the Guntawang days, he became a golf enthusiast, and, on the steep slopes of the coastal area near his home or the school, he enclosed an area with high wire netting so as to safeguard the golf ball when practising "shots".

Hamilton was a keen collector, but, withal, he had a marked aversion to cruelty in any form. This would not allow him even to keep pets in confinement against their will. He inculcated in the children of his district the love of sympathetic observation of bird activities in the field, so as to obviate the wanton destruction of birds for idle curiosity. The studies of animal life in their natural surroundings involved the taking of lengthy excursions, but Hamilton was an accomplished and tireless walker. As a naturalist he was to New South Wales much the same as John Muir was to California, the lover and protector of Nature.

Settlement at Guntawang was markedly scattered, and medical aid, from accredited practitioners, was almost non-existent. Hamilton naturally stepped into the breach in emergency, and was called upon for help in cases of accident, snake-bite, and other ailments, requiring skill beyond that possessed by the ordinary bushman.

In 1887, he accepted the position of Head Master of the Mt. Kembla Public School, and was introduced thus to an entirely new environment. From the open forests of the inland area he now came to the rain forest of Illawarra; from the dry land of the inland slopes he came to the seaside with its shoreline and its teeming wealth of life. The neighbours here were not "settlers", but coal miners in the main. The rain forest which clothed the neighbouring ranges gave him contact with a fauna and flora possessing appearances and habits differing markedly from those of the more open country of Guntawang. In his new setting he had the glorious sandy beaches and the shoreline life of Illawarra, the rolling country of the coast, with its rich volcanic soil, the abrupt escarpments and profound gorges to the immediate west, and the swampy "tops" in the sandstone country which were co-extensive with the high plateaus to the west.

The proximity to Sydney also enabled him to establish closer contact with many friends made during the joint study of various branches of science. Into the social activities of the great coal-mining district he entered also enthusiastically, establishing night classes for the study of subjects (such as geology) likely to be of use to men engaged in a mining career. The disastrous explosion at the Mt. Kembla Mine, with its heavy toll of serious accident and life, found him among the first at the pit's mouth offering his services in any helpful capacity.

It was about the year 1905 that he was promoted to the charge of the Public School of Willoughby. It would appear that his masterly knowledge of Nature Studies had been brought forcibly under the notice of the Department of Education in 1904 by reason of his clear and convincing presentation of their value at an important Educational Conference, and, as a result, he was now appointed Lecturer in Natural History and Botany at Blackfriars and Hurlstone Training Institutions, in addition to his responsibilities as Head Master at Willoughby. These arduous duties he conducted conscientiously for two years, at the expiration of which time (1907) he was appointed Lecturer in Biology and Nature Study at the Teachers' Training College, Sydney University.

The dual responsibility of administering a large public school and delivering lectures in other centres had been a heavy tax on his health, and the appointment to the Training College came, therefore, as a happy release from the former unsatisfactory official position.

His term of office at the Training College proved to be another remarkably happy period of his life, inasmuch as his main hobby had now become his full-time occupation. A marked improvement in his general health soon became noticeable.

This appointment also enabled him to enter more closely into the activities of the Linnean Society, which had always exerted a peculiar attraction for him. He was one of the early members of the Society, having joined in 1885. He was a member of the Linnean Council for many years, and occupied the Presidential Chair during the period 1915–1917. He appears to have been the last of the members of the Society who had a personal acquaintance with Sir William Macleay.

He took a very active and helpful interest in various other scientific and Natural History societies. He was a member of the Royal Society of New South Wales; the Royal Zoological Society of New South Wales; the Naturalists' Society of New South Wales (occupying the Presidential Chair over a considerable period); the Wild Life Preservation Society of Australia; the Wattle League; the Microscopical Society of New South Wales; the Gould League of Bird Lovers.

Hamilton's family included four children, three sons—Charles Greenlaw, Harold Wynne and Edgar Alexander—and one daughter—Jocelyn Emma. The sons were born at Guntawang, the daughter at Mt. Kembla. Charles, the eldest, resides in Western Australia. He has always been known as a keen naturalist and a prime mover in the development of Natural History studies in that State. In the portrayal of animal and plant life with pencil and brush he has inherited the recognized skill of his father. Harold, deceased, was a Lecturer at the Teachers' Training College, Sydney University. He will be remembered as having possessed the same helpful, cheerful, friendly, and affectionate nature, with the same love of Nature, as his father. Edgar, the youngest son, a veterinary surgeon, is a retired Government official. He maintains the old home at Chatswood, with the fine orchid collection, both of endemics and exotics (and which he has even extended), built up years ago by his father.

Hamilton passed away on the 21st October, 1941, at the advanced age of eighty-nine years and six months. His end was remarkably peaceful, the only marked inconveniences suffered by him, in his last years, being those arising from failing eyesight.

Scientific Activities.—Hamilton's contributions to science cover a wide field of biology, including careful observations on the fertilization of plants belonging to various families (Orchidaceae, Verbenaceae, Eupomatiaceae, Proteaceae, Goodeniaceae, Candolleaceae, etc.); on xerophily in Australian plants; on the carnivorous activities of the Droseraceae and other Australian plants; on Domatia and other peculiar features, in certain endemic and exotic plants.

These Nature Studies were commenced at an early age. At Guntawang his attention was attracted first to the local orchids which he commenced to represent by means of sketches with washes of colour. From these sketches the species were readily recognizable by W. Woolls and R. D. Fitzgerald. He made considerable collections of orchids for Fitzgerald. Thence he passed on to the more detailed study of the methods of fertilization observed by many species of orchids. In addition he published a list of the Mudgee district orchids in these PROCEEDINGS, and in these notes he made special references to the methods of pollination observed in various species. In later papers he dealt with the methods of fertilization observed in plants belonging to families other than the orchids.

The more important results of Hamilton's researches were published in these PROCEEDINGS, his first contribution appearing in 1885 and the last in 1927. He also read papers at a number of Australasian Association for the Advancement of Science meetings and wrote numerous popular articles on Natural History subjects which appeared in the *Public Instruction Gazette* and the *Sydney Quarterly Magazine*. In 1937, a number of

his articles which had appeared earlier in the *Sydney Quarterly Magazine* were published in book form under the title "Bush Rambles".

His attention had been turned also to birds, the names of which were supplied to him, from his sketches, by the staff of the Australian Museum.

As a result of this careful work, he became a valued correspondent with many scientific workers in Australia, such as F. M. Bailey, R. H. Cambage, R. D. Fitzgerald, J. J. Fletcher, J. P. Hill, J. H. Maiden, Baron von Mueller, Baldwin Spencer and the Rev. Wm. Woolls.

Hamilton, in a public address, delivered in 1904, thus describes his early attempts at the study of Natural History:

"When I began my career in the service (Public Instruction), some thirty-four years ago, I was as ignorant of botanical knowledge as anyone could be. I had to teach myself botany. . . . I took long walks in the bush, and collected all the plants I could see. . . . I sat down afterwards with a folded sheet of foolscap and made pencil sketches (tinted with water colours) showing all the parts as well as I could. . . . The difficulty was to secure the names of the plants. . . . I became acquainted with Dr. Woolls, who promised to name the plants of which I sent the drawings. . . . Speaking once to a scientist in Sydney concerning a certain plant, he said, 'Why do you not write a paper on the subject?' My reply was, 'If I do, who would publish?'. 'Join the Linnean Society, and they will publish it'."

Thus it came to pass that Hamilton joined the Linnean Society, of which he was to become one of its most distinguished members and supporters.

From these beginnings with plants and birds Hamilton extended his studies to include the local fauna. Reference to this work is contained in his wide correspondence mentioned below.

Previously to 1904, Nature Study was not included in the Primary School curriculum, and Hamilton's official light, up to that date, had been practically hidden "under a bushel". But the Educational Renaissance Conference of April, 1904, afforded him the opportunity he sought for urging the claim of Natural History studies in Primary Schools.

Among other truths emphasized by Hamilton during, and after, the conference, may be mentioned:

"The scientific attitude of mind is the point to be aimed at. You must place your children in the position of independent observers, who are to form their own judgment of what they see. . . . What books would you recommend? First of all, the book of Nature. Books themselves, naturally, are useful. A teacher must have some knowledge of technical terms. . . . But for everything else, it must be a matter of observation. The systematic study of science . . . tends to lessen the destruction of natural objects of 'beauty'."

As one of his colleagues writes: "His scientific methods were not confined to detailed measurements and hair-splitting definitions, but were directed, more particularly, to the dynamic side, to the life activities of his favourite objects of study, namely, the animals and plants of the bush."

In the conduct of operations he emphasized "the necessity of making drawings with detailed notes of observations; of persistently comparing unlike objects. . . ." To him "it was a preparation for service. It was not time wasted. . . . It created an interest in one's environment; was conducive to accuracy, and lifted one above the dry details of everyday life."

At a very much later stage, Hamilton found himself unable to complete various papers in process of preparation on xerophily, owing to failing eyesight. It would appear that, prior to obtaining suitable apparatus for micro-photography, he had prepared very many careful drawings with the aid of the camera lucida. This work, to a very great extent, is held responsible for his optical trouble. The fact remains that the gradual development of "diffuse cataract" growth compelled him to halt in the midst of taking necessary observations in the preparation of notes intended for publication. Earlier examinations by specialists had suggested the probability of a successful operation being undertaken for cataract. Later, however, the prognosis was definitely unfavourable, suggesting that an operation might be attended by complete blindness,

owing to the existence of certain complications. Hamilton, thereupon, decided not to risk an operation. Certain undertakings of his thus remain uncompleted.

Correspondence.—An examination of his correspondence furnishes a clue to the almost incredible amount of assistance which he gave to workers in all branches of Natural History, branches also in which he himself was either an authority or an able collaborator. It reveals also the existence of many firm friendships made with scientists both in Australia and abroad. Some of the letters received by him are full of wit and caustic humour; some are of begging nature; most of them are informative; all are interesting.

One of the more notable and respected members of the pioneer galaxy whose work has raised the Linnean Society to first class rank in the world of science, one of the Linnean's real stalwarts, wrote humorously to Hamilton under date 19th September, 1892, congratulating him on winning the medal and prize (£25) awarded by the Royal Society of New South Wales for his excellent paper on the effect which settlement in Australia has produced on the indigenous vegetation. The letter illustrates the type of good-humoured badinage and chat with which the literary pioneers were accustomed to enliven and punctuate their periods of serious scientific work.

“. . . Well, you have received the medal, the ducats, and the marmalade . . . so be happy while you may. We shall be glad to put you up for the night of 5th October if you will promise not to wear your 'corionet' at dinner. Of course if you come to the meeting be prepared to mortgage the twenty-five pounds. . . . Possibly they will want to run you in for a donation to the building fund; these are some of the prospective penalties of greatness. However, if you come, I think I can promise to go with you if I may take a smelling-bottle; their meetings are so excessively 'royal' that one requires a pick-me-up of some sort; but, however limp I may be, you can rely on H—y being regally in evidence, not merely as our only representative in Australia of Modern Malacology, but as the representative and substitute for the British aristocracy, and in full bloom and glory at that; so bring your Windsor uniform and don't forget to sharpen your sword, so that if Lord Tumberumba or Viscount Wagga Wagga should get up and ask any awkward questions, such as whether you will kindly explain to the meeting why the native grasses refuse to grow on the telegraph poles or what you consider the most fattening diets (tin cans?) for a flock of billy-goats, you can not merely wither him with a glance, but afterwards fix him under the fifth rib with your weapon when you catch him alone in the passage. Note well, however, that no blood must be shed on, or in close 'contagion' to, the throne, only on the donjon without the keep, and near the prime mortar-board, so comply strictly with the etiquette of the royal precincts, or beware of being thrown to. . . . My wife says I seem to have lost my head; being a 'Rempublican', I suppose she means that I may be in danger of doing so if I am caught accompanying you to a meeting of Royalists. . . .

“However, one must have a little diversion, hence all this twaddle. . . .”

H. A. Russell, 1895, thanks him for the drawing of a meteor evidently found by A.G.H.

C. Hedley, 1893 onwards, requests Hamilton for snails like *Planorbis*. Congratulates him on his review of Ogilvie's "Mammals". In correspondence on botany he informs A.G.H. that "species mongers are no good to you" and proceeds to eulogize the philosophical botanical minds of Henry Deane, Manson Bailey and Ralph Tate. This leads to a discussion on the distribution of *Eucalyptus* in New Guinea and other extra-Australian localities.

J. P. Hill, 1895–1902. Hill advises publishers to attempt to persuade Hamilton to prepare volumes on mammals, birds, and botanical subjects. In passing he indulges in an encomium on the services of Manson Bailey to botany.

Hill was a close friend and an admirer of Hamilton's work, and he is credited with a statement to the effect that "he had never known anyone able to obtain such excellent results as Hamilton did with the scant equipment and means at his disposal; the ingenuity and resource shown by him in constructing his own equipment, being remark-

able, particularly in regard to his work with the microscope, with the preparation of sections, and so on."

Wm. Woolls, 1880-1892. Congratulates Hamilton, in many letters, on his skill and accuracy in preparing drawings of plants for identification; urges him continually to make collections of his district, and to correspond with Baron von Mueller, using his (Woolls) name for purposes of introduction. Commends his skill in securing valuable material in mosses, ferns, lichens, orchids, eucalypts, nardoo, etc. He extols the value of the drawings but points out the necessity of securing dried specimens in addition in the case of certain ferns and mosses, as even the best drawings fail to convey the full story. "Of some drawings I feel sure, as they are done so elegantly and bring out the particular features which I desired to see. In others . . . especially in some of the Epacrids and Composites . . . (24/12/80)." He also expresses the belief that the "Government should provide for you in one of our scientific institutions" (29/12/92)."

Baldwin Spencer, 19/5/98, and later, discusses the glands of the Phylloclineous Acacias, especially with regard to the reaction of ants to the phylloides. Spencer deplores the ravages of "bush fires in the Dandenong Ranges, whereby ferns, sassafras, cottonwoods, hazels, musk, etc., are all gone, and completely scorched up. . . . It will take years to restock and many local endemic forms may be lost to science".

He bemoans the fate of the Central Australian animals and plants as a result of the great drought of 1902. In 1899 he begs Hamilton to attend the A.A.A. Science Meeting for 1900, in Melbourne, and adds, as a special inducement, that J. J. Fletcher will be there.

Baron von Mueller, 1886-1887. With characteristically large and sprawling calligraphy von Mueller furnishes the names of various lichens, while in later notes, he discusses in detail the Lobelias of the Mudgee district, and, in conclusion, asks Hamilton whether he would like to join the Linnean Society of London.

Alfred Russell Wallace, 16/5/93. (It is a pleasure to read Wallace's letters, the writing is so clear, beautiful, and full of character.) In his note he wishes Hamilton to inform him "whether introduced plants *ever* replace native plants where the latter have *not* been interfered with by man" as bearing on the Darwinian view of "the greater power of northern plants over southern".

Charles Badham. Sends congratulations to Hamilton on his election as President of the Linnean Society of New South Wales. Thanks Hamilton for botanical assistance.

J. H. Campbell, a former Treasurer of our Linnean Society, writes (10/1/28), informing Hamilton of his great pleasure at being able to obtain the latest news of Linnean members and doings from his Australian friends Walkom, Andrews, and Dixon, who have just "called in at Ottawa on their way through".

R. Broom, 26/12/95, criticises the volume published by the Linnean Society of New South Wales dealing with Presidents and Fellows. "In preparing your Jubilee Record it is a pity you dealt only with the officials and your Macleay Fellows, for you leave out by far the greatest man that has been associated with the Society, namely, Elliot Smith." (Grafton Elliot Smith was a member for years.)

The correspondence includes letters also from *Marie Stopes* (seeking Hamilton's assistance in connection with a proposed study of proteaceous woods); *Lyon Phelps* of Yale University (proposing publication of notes by Hamilton on Australian writers in *Scribner's*); *L. Cockayne* (Notes on problems of Western Australian botany); *E. A. Newell Arber* (Furnishing detailed description of fossil Permian coniferous woods from the Mt. Kembla district); *F. Manson Bailey* (On determinations of Algae); *A. C. Haddon* (5/10/89) (Proposes collaboration with Hamilton on Actinia, etc.); *E. E. Pescott* (orchids); *E. P. Ramsay* (fishes); *H. M. R. Rupp* (lengthy correspondence on orchids); R. T. Baker, E. Betehe, H. J. Carter, W. P. Cullen, J. Milne Curran, Dr. Cox, W. J. Enright, A. A. Hamilton, E. Haviland, J. H. Maiden, J. G. Luehmann, A. J. North, C. T. White, and many others, on subjects connected with the Australian fauna and flora.